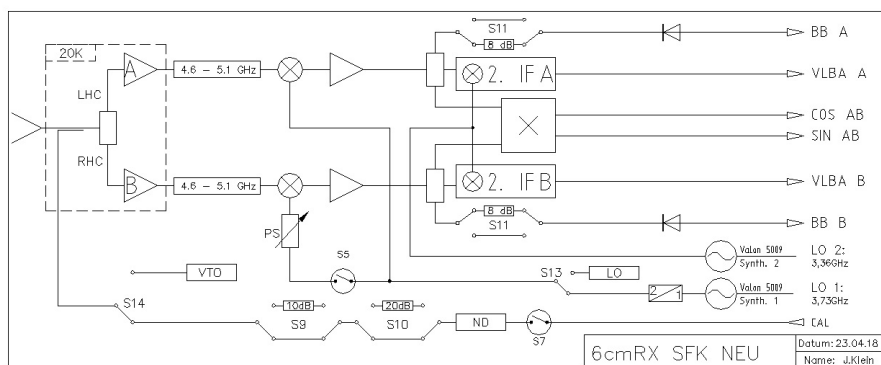


Technical Documentation of the 6cm Receiver 4.6 - 5.1 GHz (S60mm)

| | | |
|-----------------|--------------------------|---|
| Type | HEMT cooled | |
| Channels | 4 | |
| Receiver Noise | 9K | |
| Frequency range | 4.6 - 5.1 GHz | |
| Polarization | LHC/RHC | 2 horns |
| Calibration | Noise diode | phase cal for VLBI |
| Polarimeter | 2 Broadband Polarimeters | |
| 1st IF | 2360 - 2860 MHz | |
| | LO1 Valon 5009 | fsynt.1 = 3.73 GHz x 2 (LO1 = 7.46 GHz) |
| 2nd IF | 0.5 - 1 GHz | |
| | LO2 Valon 5009 | fsynt.2 = 2.2 GHz |



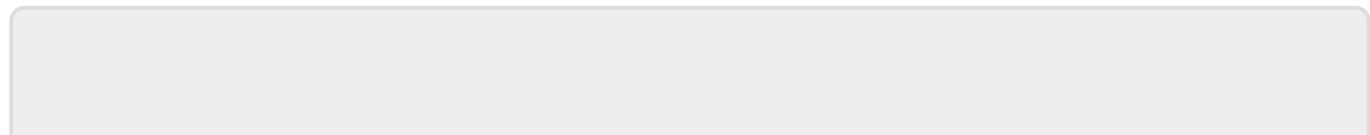
Simplified [Block Diagram](#) of the receiver, (RK on 24.4.2018)

Detailed [Block Diagram](#) of the complete receiver, (ZK on 18.5.2018)

Comment

This is a 4 channel system with cooled HEMT preamplifiers. It has been constructed for sensitive Continuum, VLBI and Pulsar observations. It is permanently installed in the secondary focus cabin. The frontend has 2 identical dewars, each comprising one horn, a cooled directional coupler, circular (RHC and LHC) transducer and 2 HEMT amplifiers etc.

The Broadband Polarimeters are placed at the frontend, because the system has a 1 GHz bandwidth.



Last
update:
2019/12/13 11:56 electronics:rx:techinfo:documentation_6cm_rx https://eff100mwiki.mpifr-bonn.mpg.de/doku.php?id=electronics:rx:techinfo:documentation_6cm_rx

From:
<https://eff100mwiki.mpifr-bonn.mpg.de/> - **Effelsberg 100m Teleskop**

Permanent link:
https://eff100mwiki.mpifr-bonn.mpg.de/doku.php?id=electronics:rx:techinfo:documentation_6cm_rx 

Last update: **2019/12/13 11:56**